

REMARKS

Applicant has resubmitted the NPL Roche reference with a date of publication as per the Examiner's request.

Claims 66-67 have been amended to recite specific structure rather than a computer program or software per se. Applicant believes that the amendments address the Examiner's concerns and Applicant requests reconsideration and withdrawal of the 35 USC 101 rejection.

Independent claims 1 and 66 have been amended to incorporate language from now canceled dependent claims 65 and 68 respectively and to further clarify the construction of a query under the present invention and the differences between fully specified and partially specified terms in a query. The present application has also been amended to clarify that a fully specified term and a partially unspecified term are separate from one another.

The Examiner has characterized portions and elements of the Smith reference (U.S. Patent No. 6,081,804) and Masand reference (U.S. Patent No. 6,131,092) as reading on the claimed limitation of a "partially unspecified term" in the present application. The applicant strongly disagrees with this position.

The Examiner has seemingly cited wildcard type characters as representing one type of a partially unspecified term in a query. A wildcard character as used in the cited prior art (and in general) is a mechanism that allows for an individual search term to have a root string as an exact match but allows for multiple variations of the term overall. For instance, the search term *cat* would return matches for "catch",

“catheter”, “scat”, and “locate” among many others since the string ‘cat’ appears in all the matches. The leading and trailing wildcard indicators “*” act as **wholly** unspecified terms since they place no restrictions whatsoever on a matching restriction.

Accordingly, a query in which a term includes a wildcard character is, in fact, fully specified with the exception that certain variations in length or spelling are permitted within an individual term including the wildcard. (See, ¶ [0108] of published application)

This is in stark contrast to a partially unspecified term that places a predefined matching restriction on the query. As set out in ¶ [0091] of the published application, a partially unspecified term includes a restriction that defines a **particular** set of character sequences that can match the term (e.g., [DATE], [NUM], [NAME], [NOUN], etc.).

A partially unspecified query term differs from a fully specified query term in that it has matching restrictions but those restrictions can be met by matches that do not necessarily share any common strings or characters. Partially unspecified query terms are context driven and define categories of matches. For instance, the partially unspecified term `_[DATE]` can return a match such as “January 23, 1987” or “3/31/2005” since both strings represent dates. Both strings meet the match criteria yet neither one necessarily contains the same character string that would form the root or basis of a fully specified term.

A fully specified term, on the other hand, contains at least one character that **must** be present in order to satisfy a matching restriction. Thus, even in the case of a string with wildcard operators, the “string” portion must be present in any match to

satisfy the search criteria. For instance, the query term *cat* must have the character string “cat” somewhere in the match to satisfy the restriction.

Both Smith and Masand teach and disclose query terms that have matching restrictions that require at least one character (usually entire word roots) to be fully specified in the query itself. Thus, neither Smith nor Masand teach the concept disclosed and claimed in the present application of a partially unspecified query term that is constrained by a matching restriction that has nothing to do with a requirement that specific letters or characters be present in the match.

Applicant previously pointed out that the Examiner had contradicted himself when rejecting claims 65 and 67 in that he initially admitted that the Smith reference did **not** disclose a partially unspecified term in a search query (See, 3/3/08 office action - page 7, lns 9-10) but then cited Smith as teaching one of said partially unspecified terms that includes a predefined character sequence representing a matching restriction that defines at least one of: a syntactical criteria, a morphological criteria, a criteria defined in accordance with a determination by a computer program, and said one or more matches for the query are determined in accordance with said matching restriction. (See, 3/3/08 office action - page 9, lns 8-13).

This is a contradiction in that the Examiner first states that Smith does not explicitly teach a partially unspecified query term (page 7) and then reverses course and states that Smith does teach one of said partially unspecified terms (page 9). Moreover, the unspecified term the Examiner seemingly relies on in Smith is merely a wildcard

operator. The wildcard operator as discussed above is a wholly (not partially) unspecified term that is actually **part of** the fully specified term and not a separate term.

The Examiner has cited Smith from col. 5, ln. 40 through col. 6, ln. 48 as teaching unspecified terms (See, 3/3/08 office action - page 4, lns 3-6) even though the Examiner also explicitly states that Smith does not teach partially unspecified terms (See, 3/3/08 office action - page 7, lns 9-10). This is indeed a contradiction.

Nevertheless, the cited portion of Smith does not, in fact, teach partially unspecified terms. Smith uses the term “switches”. Switches are intended to add attributes to a search (col. 5, ln. 52). Upon reading the Smith reference, it is clear that switches change the processing of a **fully** specified query by giving the ability to further restrict a search query. For instance, “/nocase” added as an attribute (switch) to a search query will return a match for the **fully specified term** regardless of its case (upper, lower, or mixed). Many of the other switches limit the field of search within a document such as, for instance, “/entire” allows for matches to be found anywhere in a document while “/summary” will only return matches if the fully specified term that is modified by the switch is found in the summary section of the document. Thus, the switches can refine a search and create a match restriction for fully specified terms but are incapable of providing or acting as a partially unspecified search term.

Turning now to the specific prior art rejections of the present office action, the Examiner has rejected claims 1-3, 21, 25, 27, 34-36, 39, and 64-68 under 35 USC 103(a) as being unpatentable over U.S. Patent No. 6,081,804 to Smith in view of U.S. Patent No. 6,131,092 to Masand et al.

Smith is cited as teaching the use of fully specified terms in a query as well as determining matches when query terms are not necessarily found in the same order entered. The Examiner re-iterates that Smith *does not disclose* the use of partially unspecified terms in a query. It should be noted, however, that while the Examiner does not explicitly state so, he implies that Smith's wildcard teachings somehow relate to partially unspecified terms. For reasons discussed in greater detail above, Applicant strongly disagrees with such a position to the extent the Examiner has put it forth.

The Examiner cites Masand (col. 2, Ins. 26- 28) as disclosing the use of partially unspecified terms in a query. The cited portion reads in its entirety as, "A query also comprises a series of symbols, which also represent a word, a number or other searchable feature." The Examiner is essentially relying on a single sentence within a patent reference as teaching the detailed concept of partially unspecified terms in a query. The Examiner goes on to state that the symbols in the query represent unspecified terms that need to be searched. (See, 3/3/08 office action - page 7, lns 14-15)

Upon reading the Masand reference, it is clear that the term symbol is nomenclature for a word, number, or other symbol that is to be represented by a token. A symbol field contains the actual symbol represented by the token, which may be encoded in, for example, standard ASCII code (col. 4, lns. 60-66). Thus, it is clear that a symbol is a fully specified term in that it has a specific representation that must be found in a searched document in order to meet a matching restriction. This is in direct contradiction to the Examiner's assertion that Masand's symbols are unspecified terms.

A partially unspecified term as set out in ¶ [0091] of the published application, includes a restriction that defines a particular set of character sequences that can match the term (e.g., [DATE], [NUM], [NAME], [NOUN], etc.). A partially unspecified term defines *criteria* that must be matched but not the actual characters that satisfy the criteria. So long as the characters meet the criteria (e.g., 1840 or 23 = [NUM], book or glove = [NOUN], Mexico or Canada = [Country]), a match can be returned for the partially unspecified portion of the query. Masand's symbols do not have the ability to define a matching restriction like that described above and claimed in the application. Rather, Masand's symbols/tokens **themselves** must be found within a searched document in order to meet a matching restriction.

Neither Smith nor Masand teach the use of partially unspecified terms or how to determine a match for partially unspecified terms as claimed in independent claims 1 and 66 of the present application. Since the cited prior art fails to teach each and every element and/or step of the claims, Applicant requests reconsideration and withdrawal of the 35 USC 103(a) rejection.

Applicant believes that all of the Examiner's objections and rejections have been addressed and overcome and requests that all such objections and rejections be withdrawn.

Respectfully submitted,

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